

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eric Babych on February 26th, 2009.

The application has been amended as follows:

2. **Claim 11** is rewritten as:

- A liquid crystal display comprising a ferroelectric liquid crystal layer sandwiched between two substrates, wherein an electrode and a photo alignment film are each successively formed on opposite faces of the two substrates facing each other; wherein a constituent material of the respective photo alignment layer is a photoreactive material which generates a photoreaction to give anisotropy to the photo alignment layer, the photoreaction of the constituent material of one respective photo alignment layer being a photo-dimerization reaction; and the constituent material of the respective photo alignment layer has a different composition from each other with the ferroelectric liquid crystal layer sandwiched therebetween; and wherein the ferroelectric liquid crystal is a liquid crystal having no smectic A phase in a phase series thereof, exhibiting mono-stability and undergoing half V-shaped driving; and further wherein the ferroelectric liquid crystal forms mono-domain alignment in [a] the ferroelectric liquid crystal layer. - -

3. **Claim 12** is rewritten as:

- - The liquid crystal display according to claim 11, wherein the photoreaction of the constituent material of the other respective photo alignment layer is a photo-dimerization reaction or a photo decomposition reaction. - -

4. The **Abstract** is rewritten as:

- - ~~A main object of the~~ The invention ~~is to provide~~ provides a liquid crystal display using a ferroelectric liquid crystal, which can give mono-domain alignment of the ferroelectric liquid crystal without forming alignment defects ~~such as zigzag defects, hairpin defects and double domains~~ and which is so remarkably good in alignment stability that the alignment thereof can be maintained even if the temperature of the liquid crystal is raised to the phase transition point or higher. The present invention ~~achieves the object by providing~~ provides a liquid crystal display comprising a ferroelectric liquid crystal sandwiched between two substrates, wherein an electrode and a photo alignment layer are each successively formed ~~on opposite faces of the two substrates facing each other~~; a constituent material of the respective photo alignment layer is a photoreactive material which generates a photoreaction to give anisotropy to the photo alignment layer; and the constituent material of the respective photo alignment layer has different composition from each other with the ferroelectric liquid crystal sandwiched therebetween. - -

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance.

The closest cited prior art of record, US 2003/0232930, fails to fairly teach or suggest, even in view of US 2003/0058210, the liquid crystal display comprising the specific combination of a ferroelectric liquid crystal layer sandwiched between two photoalignment layers, a constituent material of one photoalignment layer which is a photoreactive material which generates a photoreaction that is a photo-dimerization reaction to give anisotropy to the photoalignment layer, and a constituent material of the other photoalignment layer which generates a photoreaction to give anisotropy to the other photoalignment layer, wherein the constituent material of the respective photoalignment layer has a different composition from each other, and wherein the ferroelectric liquid crystal is a liquid crystal having no smectic A phase in a phase series thereof, exhibiting mono-stability and undergoing half V-shaped driving, and forms mono-domain alignment in the ferroelectric liquid crystal layer.

Applicant has demonstrated that the specific combination of photoalignment layers gives mono-domain alignment to a ferroelectric liquid crystal layer having no smectic A phase in a phase series thereof, exhibiting mono-stability and undergoing half V-shaped driving. See Applicant's remarks dated 10/27/08 in light of Applicant's affidavit dated 12/04/08.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks, can be reached on (571)272-1401. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sophie Hon/
Examiner, Art Unit 1794

/KEITH D. HENDRICKS/
Supervisory Patent Examiner, Art Unit 1794